

Practice Test - Finance

1. Calculate the missing information in the table. (p.460 #6)

Principal, P(\$)	Interest Rate, r (%)	Time, t	Simple Interest, I(\$)
735.00	5.5	27 days	
	8.25	240 days	138.25
182.65	6.75		23.28
260		2 months	16.50

2. Afzal can buy a \$2000 GIC from a bank that earns 6.5% compounded annually for 5 years. At another bank, he can buy a \$2000 GIC that earns 7% simple interest for 5 years. (p.461 #11)

- Which GIC earns more interest?
- How much more interest does it earn?

3. Complete the table. (p.468 #2)

Principal	Annual Interest Rate (%)	Time (years)	Compounding Frequency	i (%)	n	Amount (\$)	Interest Earned
400	5	15	Annually				
750	13	5	Semi-monthly				
350	2.45	8	Monthly				
150	7.6	3	Quarterly				
1000	4.75	4	Daily				

4. If \$350 grows to \$500 in 3 years, what is the annual interest rate assuming that interest is compounded annually? (p.469 #8)
5. Betty plans to send her parents on a \$15000 vacation for their 30th wedding anniversary 10 years from now. She would like to invest the money today in a GIC term deposit earning 6%/a compounded semi-annually and split the cost of its purchase with her sister and brother. How much will each person contribute towards the purchase of the GIC? (p.477 #11)
6. Jason borrowed money that he will pay back in 3 years' time. The interest rate was 5.25%/a compounded monthly. He will repay \$3350 after 3 years. How much money did Jason borrow? (p.477 #10)

7. Marshall wants to have \$5000 in 4 years. He has two options for investment" A saving account will pay 3.5%/a compounded monthly; a GIC will pay 3.4%/a compounded semi-annually. Which investment should Marshall pick and why? (p.478 #15)
8. How long does it take for an investment to triple in value at 10%/a interest compounded monthly? (p.487 #7)
9. What interest rate is needed for \$20 000 to double in 5 years if the interest is compounded quarterly? (p.486 #1c)
10. Yanmei has contributed \$250 to an RRSP at the end of each 3-month period for the past 35 years. During this time, the RRSP has earned an average of 11.5%/a compounded quarterly.
- How much will the RRSP be worth at maturity?
 - How much of the investment will be interest earned over the 35 years? (p.499 #7)
11. Mario deposits \$25 at the end of each month for 4 years into an account that pays 9.6%/a compounded monthly. He then makes no further deposits and no withdrawals. Determine the balance 10 years after his last deposit. (p.500 #11)
12. Mary needs \$750 a years to buy textbooks. She will start university in 1 year. Her savings account pays 4%/a compounded annually. How much needs to be in her account now to pay for the books? (p.507 #5)
13. 'Shimon wants to buy a speedboat that sells for \$22 000, including all taxes. The dealer offers either a \$2000 discount, if Shimon pays the total amount in cash, or a finance rate of 2.4%/a compounded monthly, if Shimon makes equal monthly payments for 5 years. (p.507 #11)
- Determine the monthly payment that Shimon must make if he chooses the second offer.
 - What is the total cost of the Dealer's finance plan for the speedboat?
 - Shimon can pay cash if he borrows the money from the bank at 6%/a, compounded monthly, over 5 years. Which offer should Shimon choose?

TVM Solver - MORTGAGE PRACTICE QUESTIONS:

The answers for each questions are given in [] at the end of each question.

- Meghan has a \$210 000 mortgage at 7.75% amortized over 25 years. Determine her regular payment if she makes her payments:

[\$1 569.37/mo, \$783.44/bi-mo, \$723.09/bi-wk]

a) monthly

b) bi-monthly

c) bi-weekly

Recall:

Bi-monthly

Twice a month

Bi-weekly

Every 2nd week

N=
I%=
PV=
PMT=
FV=
P/Y=
C/Y=
PMT:END BEGIN

N=
I%=
PV=
PMT=
FV=
P/Y=
C/Y=
PMT:END BEGIN

N=
I%=
PV=
PMT=
FV=
P/Y=
C/Y=
PMT:END BEGIN

- Vicki is making monthly payments of \$873.49 to pay off a \$150 000 mortgage amortized over 20 years. What annual rate of interest is she being charged? [3.57%]

N=
I%=
PV=
PMT=
FV=
P/Y=
C/Y=
PMT:END BEGIN

- Thomas is paying \$682.14 every two weeks to pay off his \$230 000 mortgage over 25 years. Determine the annual rate of interest on his mortgage. [6.06%]

N=
I%=
PV=
PMT=
FV=
P/Y=
C/Y=
PMT:END BEGIN

- Carrie is paying \$1517.04 per month on her \$195 000 mortgage. If she is being charged 4.8%/a, how many years will it take her to pay off her mortgage? [15 years]

N=
I%=
PV=
PMT=
FV=
P/Y=
C/Y=
PMT:END BEGIN

- How many years will it take George to pay off a \$130 000 mortgage at 3.35% if he can afford a payment of \$413 every two weeks?

[15 $\frac{1}{2}$ years]

N=
I%=
PV=
PMT=
FV=
P/Y=
C/Y=
PMT:END BEGIN

- Determine the amount of a mortgage at 6.4%/a over 25 years, if the bi-monthly payment is \$580. [\$174 988.07]

N=
I%=
PV=
PMT=
FV=
P/Y=
C/Y=
PMT:END BEGIN